

Work Order ID 111758

Wednesday, January 29, 2014 2:24:16 PM

111758

DUPLICATE

RUSH. TULMAR Page 1

Item ID: PB67-43001-73

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: 20 Degree Cover Plate

Start Date: 1/21/2014 Start Qty: 16.00

16

#18*

Cust Item ID:

Required Date: 3/7/2014 Req'd Qty: 16.00

16

Customer:

Reference:

Approvals:

Process Plan: MF

Date: 14-4-21

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
B67-43001-73	Rev C

100

0.00

100

FLOW WATER JET

Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg B67-43001 Dwg Rev: C Prog Rev: C

***grain direction along 6.950" ***2-Deburr if necessary

18 0 Ac 14.01.30

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Memo

0.00

Quality Control

18 0 Ac 14.01.30

120

QC8- Inspect parts - second check

0.00

120

QC

Memo

0.00

Quality Control

DAS
27
3.89
14/1/30

18

DQA:

Date: 14/05/01



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: 14/4/30

Work Order update only ☐

Work Order: 111758	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☒ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS			
Part No. PB67-43001-73		Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. 14-3790		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
		Large Fab ☐	Composite ☐	Supplier ☒	

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data	14/3/4	100	18	FOAM: SBR/EPDM/CR BLEND, BLACK ASTM D1056 ZAZ	DAS 12 9-89	Acceptable deviation	DAS 12 9-89	DAS 27 9-89	J.S 27 9-89
Equip/Tooling					14/3/4	PART IS NOT AUTHORIZED	14/3/4	14/4/16	14/4/16
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Page 2

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00		DAS					
130	NC BRAKE			30		18			14/01/30
Brake NC	Memo	0.00		9-89					
Brake NC	Bend as per Dwg B67-43001								
140		0.00		DAS					
140	QC5- Inspect part completeness to step on W/O			27		18			
QC	Memo	0.00		9-89					
Quality Control									
150		0.00							
150	Large Fab					18			14-02-04 PD
Large Fab	Memo	0.00							
Large Fab	1- weld as per dwg B67-4300								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other _____ _____ _____
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Work Order ID 111758***111758***

Page 3

Wednesday, January 29, 2014 2:24:16 PM

Item ID: PB67-43001-73

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: 20 Degree Cover Plate

Start Date: 1/21/2014 Start Qty: 16.00

16

Cust Item ID:

Required Date: 3/7/2014 Req'd Qty: 16.00

16

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

160

160

Small Fab

Small Fab

Memo

0.00

0.00

Small Fab

1-grind weld flush

18 14-02-04 PD

170

170

QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

Memo

0.00

0.00

SNP
14/2/1418 _____

180

180

QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

SNP
14/2/1418 _____

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other _____ _____ _____
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Page 4

Quality Control

18 MG 14-2-5

18 of 14-2-5

18

DAS

27

9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
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Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other _____ _____ _____
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Work Order ID 111758***111758***

Page 5

Wednesday, January 29, 2014 2:24:16 PM

Item ID: PB67-43001-73

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: 20 Degree Cover Plate

Start Date: 1/21/2014 Start Qty: 16.00

16

Cust Item ID:

Required Date: 3/7/2014 Req'd Qty: 16.00

16

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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220

0.00

220

PURCHASING

Purchasing

Memo

0.00

Purchasing

SEND TO TALMAR FOR FOAM AND FABRIC

P/O. 22997

C214102113 18

230

0.00

230

Receive & Inspect for Damage & Mat'l Certs

Packaging

Memo

0.00

Packaging

P-14/4/14 (18)

240

0.00

240

QC6- Inspect dimensions to drawing

QC

Memo

0.00

Quality Control

DAS
27
9-89

14/4/15

18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other _____ _____ _____
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Work Order ID 111758

Wednesday, January 29, 2014 2:24:16 PM

111758

Page 6

Item ID: PB67-43001-73

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: 20 Degree Cover Plate

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Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

250

Identify as per dwg & Stock Location: _____

0.00

250

Packaging

Memo

ME222

0.00

Packaging

1/4/15 *(18)*

260

QC21- Final Inspection - Work Order Release

0.00

260

QC

Memo

0.00

Quality Control

ML5 1404-15
*ML5 1404-15***POSITIVE RECALL**EFFECTIVE 1/3/14 AUTH GPRELEASED GP DATE 1/4/14

CHECK FOAM DENSITY

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other _____ _____ _____
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Picklist Print

Wednesday, January 29, 2014 2:24:14 PM

Page 1

Work Order ID: 111758

Parent Item: PB67-43001-73

Start Date: 1/21/2014

Required Date: 3/7/2014

Parent Item Name: 20 Degree Cover Plate

Start Qty: 16.00

Required Qty: 16.00

Comments: IPP Rev:A 08-06-19 new issue DD verified by:ec
dwg EC verified by:DD

IPP rev B 10.09.30 per rev C

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.032 6061-T6 Sheet 0.032"		Purchased	No			100	sf	491.3232	1.0183	18		Ac 14.01.30	

Location

Loc Qty

Loc Code

MAT021

491.32317

123483

8.57

m125822

17

m127272

129.75317

m128054

336

128054 → 18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

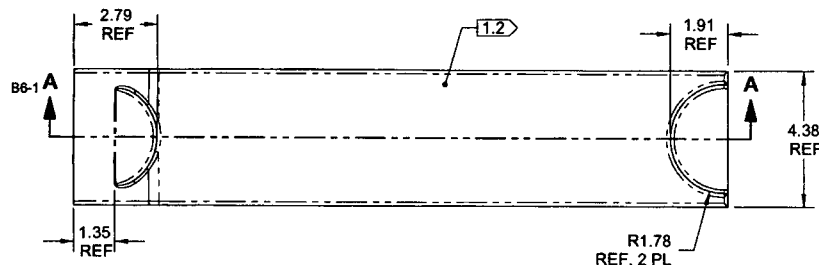
Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

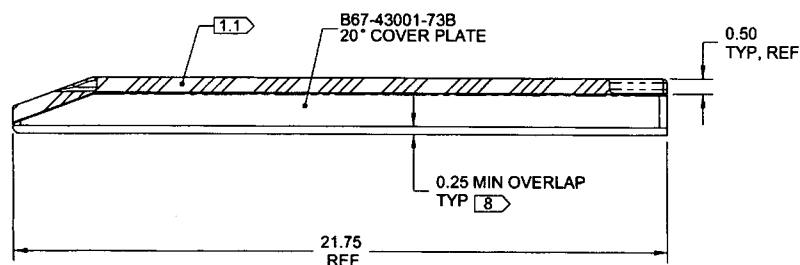
FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other _____ _____ _____
--	--	---	---

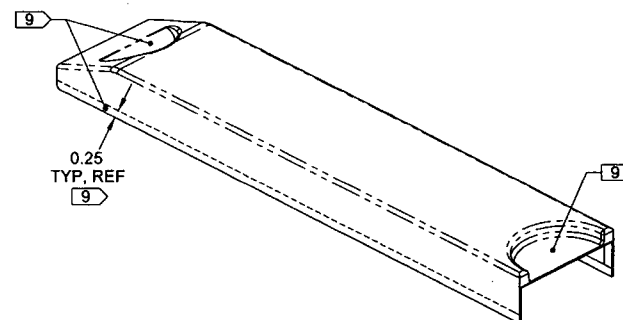
ITEM	QTY	P/N	DESCRIPTION
1	1	B67-43001-73	20° COVER PLATE
2	1	B67-43001-73B	20° COVER PLATE
3	A/R	1637-001	SEE NOTE 1.1
4	A/R	1495	SEE NOTE 1.2
5	A/R	LA4009	SEE NOTE 1.3



B67-43001-73 COVER PLATE ASSEMBLY
(MAKE FROM B67-43001-73F)



SECTION A-A 08-1



RELEASED
2010-09-16
MD

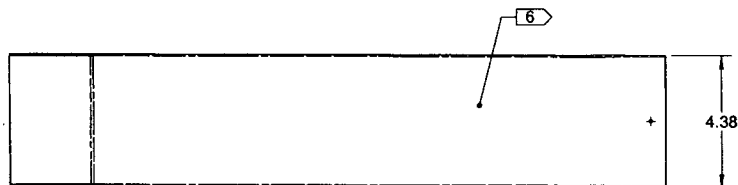
NOTES:

- 1) MATERIAL:
 - 1.1) FOAM: ETHYLENE PROPYLENE NEOPRENE SBR CLOSED-CELL, FLAME RETARDANT, 0.50 THICK, PER ASTM D1056 2A2, SERVICE TEMP -40°F TO +200°F, COLOUR: BLACK REF. TULMAR P/N 1637-001
 - 1.2) FABRIC: 100% 420 DENIER NYLON, MIN THREAD COUNT 35X35, POLYURETHANE COATED ONE SIDE, COLOUR: BLACK REF. TULMAR P/N 1495
 - 1.3) ADHESIVE: URETHANE WITH CATALYST, TWO PART, CLIFTON LA4009
- 2) FINISH: BOND NEOPRENE TO COVER PLATE USING ADHESIVE. COVER WITH DENIER AS SHOWN.
- 3) TOLERANCES: PER TABLE 1 (ZN A3-1) UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.77 lbs REF
- 8) DENIER NYLON TO BE BONDED ALL AROUND INNER SIDES OF PLATE
- 9) DENIER NYLON TO BE BONDED TO PLATE ON OUTER SIDES

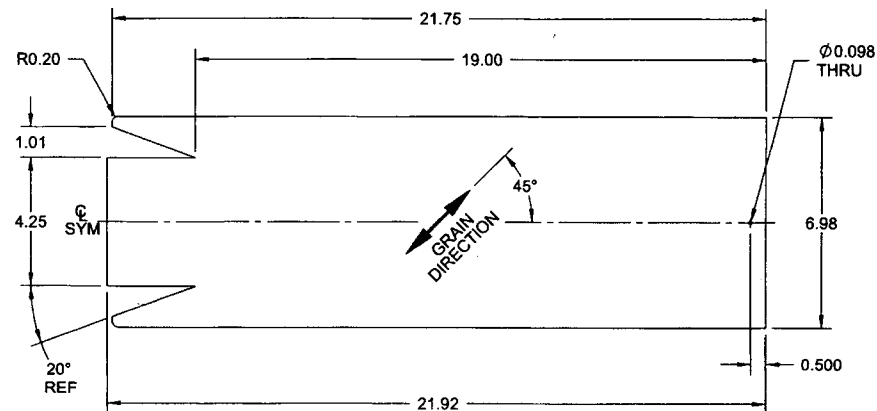
TABLE 1 3

TOLERANCES ON FABRIC (PARTS AND ASSEMBLIES)
±1/8: DIMS <2
±1/4: DIMS 2 TO <10
±1/2: DIMS 10 TO <20
±5/8: DIMS 20 TO <40
±1.5%: DIMS EQUAL TO OR > 40

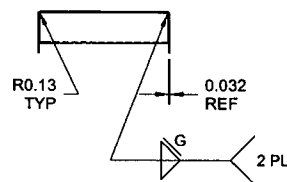
C	REDRAWN PREMIER AVIATION DRAWING IAW DART QSI 018, QSI 043 AND TULMAR SAFETY SYSTEMS INC.'S MANUFACTURING PROCESS AND TOLERANCES ON FABRIC: 4.38 WAS 4.25. FOR PREVIOUS REVISIONS, REFER TO SHEETS 7 AND 26 OF PREMIER AVIATION DRAWING No. B67-43001. REASON: SEE PAR#09-011.		MB	10.04.27
	REV.	DESCRIPTION	BY	DATE
DESIGN	FW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN				
CHECKED		DRAWING NO. B67-43001-73 REV. C		
MFG. APPR.				
APPROVED	MD	TITLE 20° COVER PLATE SCALE NTS		
DE APPR.	N/A			
DATE	10.04.27	COPYRIGHT © 1995 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.		



B67-43001-73B BENDING DETAIL
(MAKE FROM B67-43001-73F)



B67-43001-73F COVER PLATE FLAT PATTERN

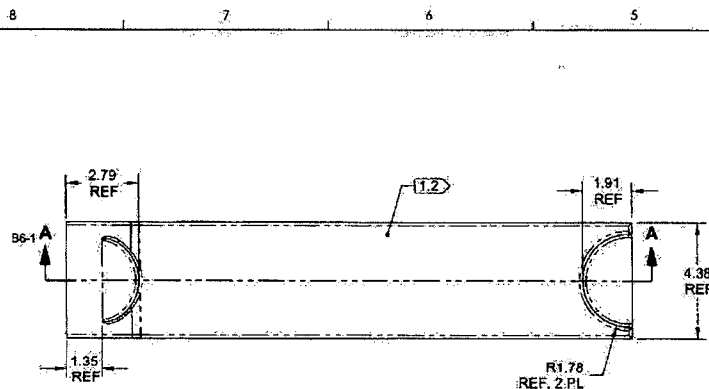


RELEASED
2010-09-16
MP

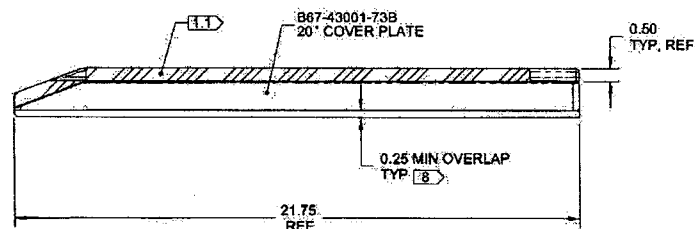
NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T62) ALUMINUM SHEET, 0.032 THICK
PER AMS-QQ-A-250/11 OR AMS 4025/4027 OR ASTM B209
REF. DART SPEC. M6061T6S.032
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GREEN SANDEX (4.3.5.8) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "B67-43001-73B" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.47 lbs

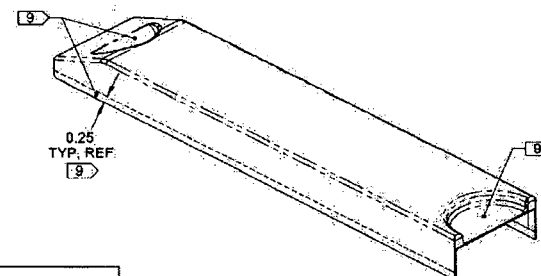
DESIGN	RW	DART AEROSPACE LTD	
DRAWN	MP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MP	DRAWING NO.	REV. C
MFG. APPR.	MP	B67-43001-73	SHEET 2 OF 2
APPROVED	MP	TITLE	SCALE
DE APPR.	N/A	20° COVER PLATE	NTS
DATE	10.04.27	COPYRIGHT © 1995 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



B67-43001-73 COVER PLATE ASSEMBLY
(MAKE FROM B67-43001-73F)



SECTION A-A 08-1



TULMAR MARK-UP
REV 1
02/10/2014 RL

ITEM	QTY	PIN	DESCRIPTION
1	1	B67-43001-73	20° COVER PLATE
2	1	B67-43001-73B	20° COVER PLATE
3	A/R	1637-001	SEE NOTE 1.1
4	A/R	1495	SEE NOTE 1.2
5	A/R	LA4009	SEE NOTE 1.3

- NOTES:**
FOAM, SBR/EPDM/CR BLEND, BLACK, ASTM D1056 2A2, 1/2" THK.,
1) MATERIAL: BRITTLENESS TEMP OF -40F, IAW ASTM D 746, FMVSS 302.
1.1) FOAM: ETHYLENE PROPYLENE NEOPRENE SBR CLOSED CELL, FLAME RETARDANT, 0.50 THICK,
PER ASTM D1056 2A2, SERVICE TEMP -40° F TO +200° F, COLOUR: BLACK,
REF: TULMAR P/N 1637-001
1.2) FABRIC: 100% 420 DENIER NYLON, MIN THREAD COUNT 35X35, POLYURETHANE COATED ONE SIDE,
COLOUR: BLACK
REF: TULMAR P/N 1495
1.3) ADHESIVE: URETHANE WITH CATALYST, TWO PART, CLIFTON LA4009 OR LA4009NOVOC.
2) FINISH: BOND NEOPRENE TO COVER PLATE USING ADHESIVE. COVER WITH DENIER AS SHOWN.
3) TOLERANCES: PER TABLE 1 (ZN A3-1) UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: N/A
6) IDENTIFICATION: N/A
7) WEIGHT: 0.77 lbs REF
8) DENIER NYLON TO BE BONDED ALL AROUND INNER SIDES OF PLATE
9) DENIER NYLON TO BE BONDED TO PLATE ON OUTER SIDES

TABLE 1 [3]

TOLERANCES ON FABRIC (PARTS AND ASSEMBLIES)
±1/8" DIMS <2
±1/4" DIMS 2 TO <10
±1/2" DIMS 10 TO <20
±5/8" DIMS 20 TO <40
±1.5% DIMS EQUAL TO OR > 40

C	REDRAWN PREMIER AVIATION DRAWING IAW DART OSI 013, OSI 043 AND TULMAR SAFETY SYSTEMS INC'S MANUFACTURING PROCESS AND TOLERANCES ON FABRIC. 4.38 WAS 4.25. FOR PREVIOUS REVISIONS, REFER TO SHEETS 1 AND 26 OF PREMIER AVIATION DRAWING No. B67-43001. REASON: SEE PAR08-011.	MB	10.04.27
REV.	DESCRIPTION	BY	DATE
DESIGN	RAW		
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.	N/A		
DATE	10.04.27		

RELEASED
2010-09-16
MD

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. B67-43001-73
REV. C
SHEET 1 OF 2

TITLE 20° COVER PLATE
SCALE NTS

COPYRIGHT © 1996 BY DART AEROSPACE LTD
THIS DOCUMENT IS THE PROPERTY OF DART AEROSPACE LTD. IT IS TO BE USED FOR THE PURPOSES SPECIFIED IN THE ORDER. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO22997

Purchase Order Date 2/13/2014

PO Print Date 3/4/2014

Page Number 2 of 2

Order From :

TULMAR SAFETY SYSTEMS
1123 CAMERON ST
HAWKESBURY, ON K6A 2B8
CA

VC-TUL001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 613 632 1282

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

VENDOR'S TRUCK

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Total:

\$1,800.00

3 111761

PB67-43001-69 90°
COVER PLATE

3/7/2014

20.00

\$150.00

\$3,000.00

Yes

3/28/2014

FOAM AND FABRIC AS PER DWG REV. D + 1

NOTE: ACCEPTABLE DEVIATION PART ARE NOT AIRWORTHY

FOAM, SBR/EPDM/CR BLEND BLACK, ASTM D1056 2A2, 1/2" THK BRITTLENESS TEMP. OF-40F, IAW ASTM D 746, FMVSS 302
ADHESIVE: LA4009NOVOC

Line Total:

\$3,000.00

4 111758

PB67-43001-73 20°
COVER PLATE

3/7/2014

18.00

\$130.00

\$2,340.00

Yes

3/28/2014

FOAM AND FABRIC AS PER DWG REV. C + 1

NOTE: ACCEPTABLE DEVIATION PART ARE NOT AIRWORTHY

FOAM, SBR/EPDM/CR BLEND BLACK, ASTM D1056 2A2, 1/2" THK BRITTLENESS TEMP. OF-40F, IAW ASTM D 746, FMVSS 302
ADHESIVE: LA4009NOVOC

Line Total:

\$2,340.00

PO Total:

\$8,490.00

PO Instructions: Procurement Quality Clauses

A004 faa-pma/tso

A005 right of entry

A007 first article inspection (fai)

A016 personnel qualification

A026 certification of material conformance

A027 flammability test

A040 notification of quality escape

A041 quality ma

PACKING SLIP

TULMAR

Tulmar Safety Systems Inc.
1123 Cameron Street
Hawkesbury, ON K6A 2B8 CA
Tel: 613-632-1282
Fax: 613-632-2030
MID : XOTULSAF1123HAW
email: info@tulmar.com

Packing Slip No.

51585

Ship Date

11-Apr-14

Bill To:

Dart Aerospace

1270 Aberdeen Street
Hawkesbury, ON K6A 1K7. Canada

Ship to:

Dart Aerospace

1270 Aberdeen Street
Att: Chantal Lavoie
Tel: 613-632-9577
Hawkesbury, ON K6A 1K7. Canada

Order number	Sales order date	Account number	Account manager
31582	14-Feb-14	CDART100	Helena Vandeweerd
PO number	Ship Via	Shipping Terms	
PO22997	Pick-Up	FOB HAWKESBURY	
Item No.	Quantity ordered	UOM	Qty Shipped/Returned
Description			Quantity on back order

QA -A027 waived

Note = Foam & Fabric as per Dwg

8421-106

20

EA

20

Plate, Cover 90°, Ass'y/

Drawing No: B67-43001-69+MU

DWG Rev: D+1

A004 A005 A007 A016 A026 A040 A041

Lot No: BATCH0000000009 Qty: 20

8421-105

18

EA

18

Cover Plate, 20°/

Drawing No: B67-43001-73+MU

DWG Rev: C+1

A004 A005 A007 A016 A026 A040 A041

Lot No: BATCH0000000008 Qty: 18

Shipper

Air Reed

Date:

APR 11 2014

Certificate of Conformance

☒ See Certification Enclosed

I hereby certify that the items listed hereon have been inspected, and / or tested (as applicable), conform to all specifications and requirements detailed in the contract or purchase order. Objective evidence to support this statement is on file, and can be made available upon request.

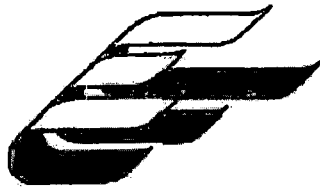
If any questions or concerns, please contact QA Manager @ 613-632-1282 ext. 245.

Authorized Inspector

Roxanne Hawthier

Date:

APR 11 2014



J. ENNIS FABRICS

October 7, 2013

Fax To: Tulmar Safety Systems
Fax: 613-632-2030
Attention: Meagan

Certificate of Conformance

Re: PO 26380-00 for Oxford 7 Black

The goods shipped on P/O 26380-00 are as per sampled goods. Specification as follows:
As per mill documentation:

Oxford 7 Black is in compliance with the following standards:

Width: Product is 58 Inches Wide.

Roll Size: Average Roll Length is 75 Yards.

Weight: Product Weight is 6.79 Ounces per Sq.Yd. /Product Weight is 10.94 oz per Lin.Yd

Content: 100% Nylon

Coating: Product has a Polyurethane Coating (approximately 0.65 oz/ Sq.Yd. (18.5g/sq.yd.))

Denier: Yarn is 420 Denier.

Thread Count: Construction is 62 x 38 Threads per Square Inch

Protective Finish: Product is Water Repellent.

Hydro Resist: AATCC 127 (Suter): Average 800 mm

Piece # Various Manufacture Date: 05/17/13, Lot Number: 422038

Sincerely,
J. Ennis Fabrics Ltd.

C. Harris

Crystal Harris
Customer Service Specialist

*C/c's used to mfg.
B67-43001-73 (Rev. C+1)
Lanaire, Laliberté
April 9/14*

1495/29.



TULMAR**Certificate of Conformance**

Tulmar P/N 1637-001	Description Foam, SBR/EPDM/CR blend, black, ASTM D1056 2a2, 1/2" thick, 42"x72", brittle temp of -40°F IAW ASTM D746, FMVSS 302	Dwg # N/A	Revision -	Qty 4
Tulmar PO # 27193-00	Line Item # 1	Supplier Name / Address Am Rubber & Foam Gaskets Inc. 2074 Steeles Ave. East Units 1 & 2, Brampton On L6L 4Z9	Supplier Packing Slip # 12190	

Supplier Declarations:

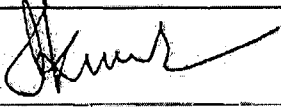
Hazardous Materials Acknowledgement	The items described below may contain, and their processing may have included, the following substances:	Hexavalent Chromium; Cadmium; Beryllium; Nickel; Mercury; Lead; Asbestos; Radioactive elements YES ☐ NO ☒
Country of Origin of Goods : CANADA		if YES, please complete the HazMat Acknowledgement form @ www.tulmar.com
Limited Shelf-Life	<u>Definition:</u> If material is consumed or transformed into final product before end of shelf-life there is no effect on final product.	These items have a limited Shelf-Life YES ☐ NO ☒
Expiry date	<u>Definition:</u> Date after which performance will no longer be as intended - expiration is transferred to the final product.	These items have an expiry date YES ☐ NO ☒

if YES, please complete the Time Expired - Shelf-Life questionnaire @ www.tulmar.com

Additional Information (MRS#, MRA#, limitations, etc...):

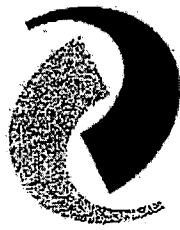
--

I hereby certify that the goods listed hereon have been inspected and/or tested, as applicable, and conform to all specifications and requirements detailed in the contract or purchase order and relevant quality clauses. Objective evidence to support this statement is on file and can be made available upon request. Should further information be required, please contact:

Signature: 	Name: Joseph Mallick	Date (DD-MMM-YYYY): 02/01/2014
Title: QA MANAGER	Email: Joe.Mallick@amrubber.ca	Phone #: 647-501-1449

Form Revision 13 Aug 2012

TSS # **1637-001/05****50**

**ROYAL****ADHESIVES & SEALANTS, LLC**

Aerospace & Marine Inflatable Adhesives & Coatings Division

Date: 11/18/13

LA4009

Shipper #: 755

Certificate of Compliance

This letter certifies that 110 x 1 gallon cans of LA4009 Polyurethane Adhesive,

**Drawing No: (Ref 10557979)

lot number: PNJ-1113-041 was shipped to you on 11/18/13. **DWG REV: "A" Royal Adhesive & Sealants,

LLC - Aerospace & Marine Inflatable Adhesives & Coatings Division manufactured this material according to internal specifications which include quality control and assurance procedures. The material was manufactured on 10/22/13 against your Purchase Order # 26618.

Shelf Life: 1 year from date of manufacture

Expiration Date: 10/22/14

This letter certifies that 19 x quart cans of CATUV Accelerator, Lot number PNJ-1113-040 was shipped to you

on 11/18/13. Royal Adhesive & Sealants, LLC - Aerospace & Marine Inflatable Adhesives & Coatings

Division manufactured this material according to internal specifications which include quality control and assurance procedures. The material was manufactured on 11/14/13 against your Purchase Order # 26618.

Shelf Life: 1 year from date of manufacture

Expiration Date: 11/14/14

Sincerely,

Dan Constantino

Daniel Constantino

TSS 7122/59

(SW)

Royal Adhesives & Sealants, LLC - Aerospace & Marine Inflatable Adhesives & Coatings Division
48 Burgess Place Wayne, New Jersey 07470 Phone: 973-694-0845 Fax: 973-694-5678

TSS 7122-501/10 *(SW)*